

Planning Guide

November 2010

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OVERVIEW

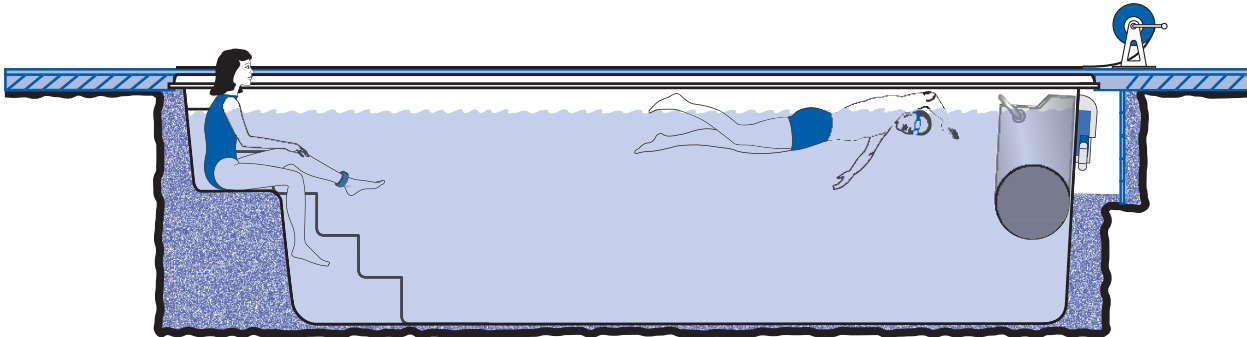
Our Fiberglass Endless Pool employs the most durable material available. The molded single shell provides an attractive, smooth finish that fits into many design schemes. The clean interior with built-in stairs and rear bench provides a traditional pool look. In commercial settings the tough finish and greater depth easily accommodate heavy use, underwater treadmills and higher water temperatures.

Your first decision is how you wish the pool to appear in your space: fully in-ground, partially in-ground or fully aboveground. Fully in-ground and partially in-ground appearances can be achieved either by digging a hole, installing the pool and then backfilling around the pool or by using our optional external bracing system and then decking up around the pool. This latter approach is often employed indoors where a larger room is being constructed and a crawl space is desired.



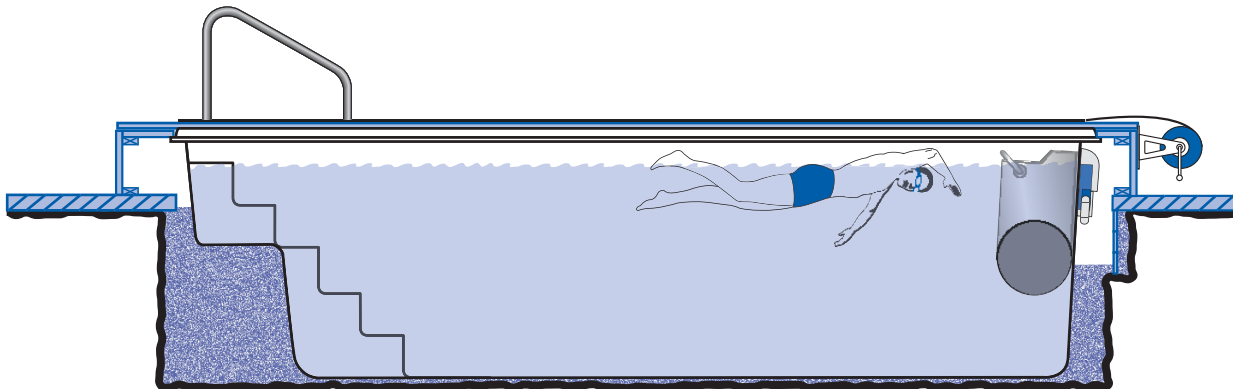
FULLY IN-GROUND POOL WITH BACKFILL

This is the traditional method of installing a fiberglass pool and involves first digging a hole 10' wide by 20' long and approximately 5' deep for our standard model. The exact depth will depend on your planned interface between the pool and the surrounding deck (See page 7). The pool is then lowered into a prepared hole and sand is used as backfill to support the pool and withstand the hydrostatic load of a water filled pool. Finally, concrete is poured around the perimeter of the pool (See page 9).



PARTIALLY IN-GROUND POOL WITH BACKFILL

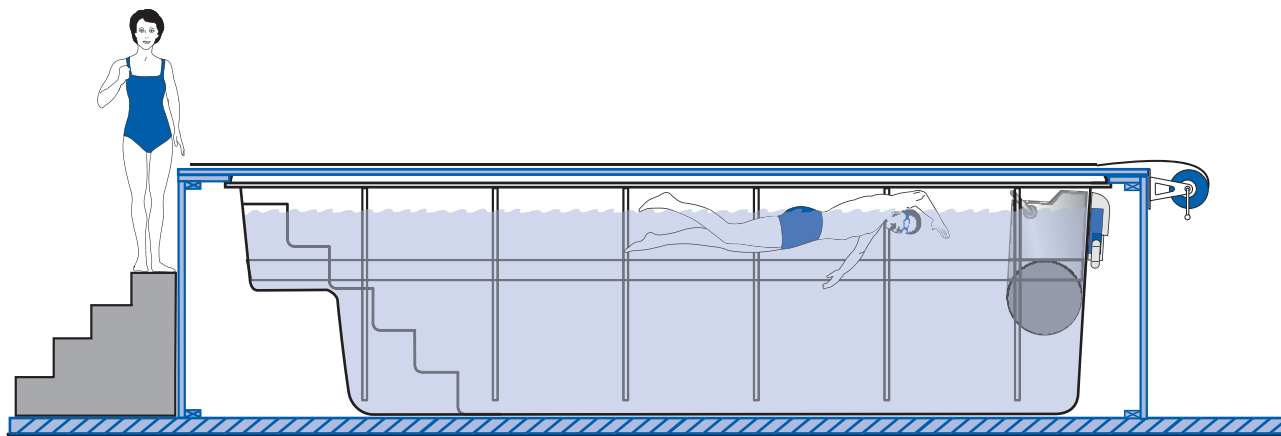
The backfilled Fiberglass Endless Pool can extend up out of the ground as much as 18" without lateral support if the bottom 42" or more is fully supported with backfill. At the front, where the equipment is mounted, up to 24" must be exposed as shown. With partially in-ground pools the hole can be narrower requiring less excavation. If the pool protrudes more than 12" out of the ground the hole can be as little as 9' wide. When the partially in-ground method is employed a kneewall is typically constructed to provide a suitable seat or coping around the pool.



ABOVEGROUND WITH OPTIONAL BRACING SYSTEM

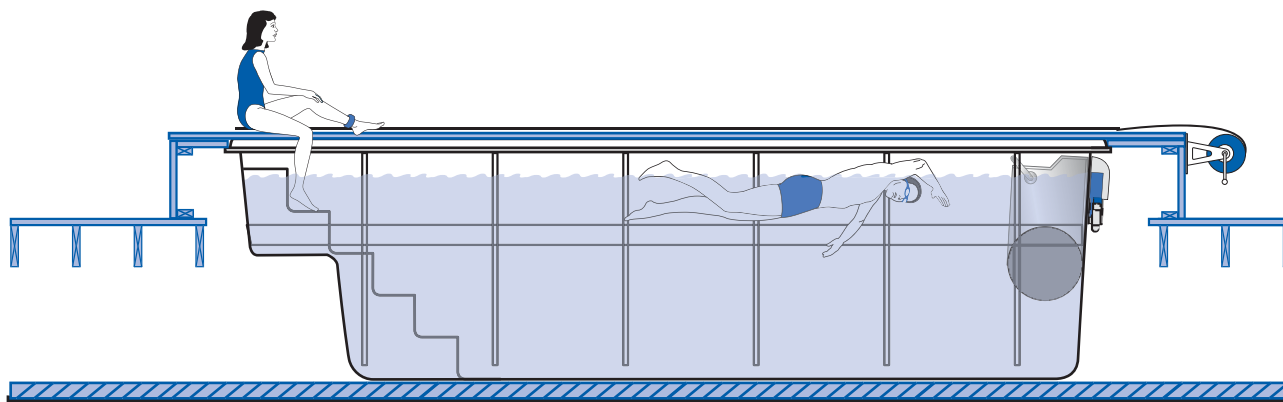
Fully aboveground effect

With our standard depth Fiberglass Endless Pool you may purchase a supplementary external bracing system that is installed at the factory and allows the pool to be freestanding. When this system is used the pool may be installed aboveground. This external bracing system is not available with our 5' 6" or 6' 0" tall models.



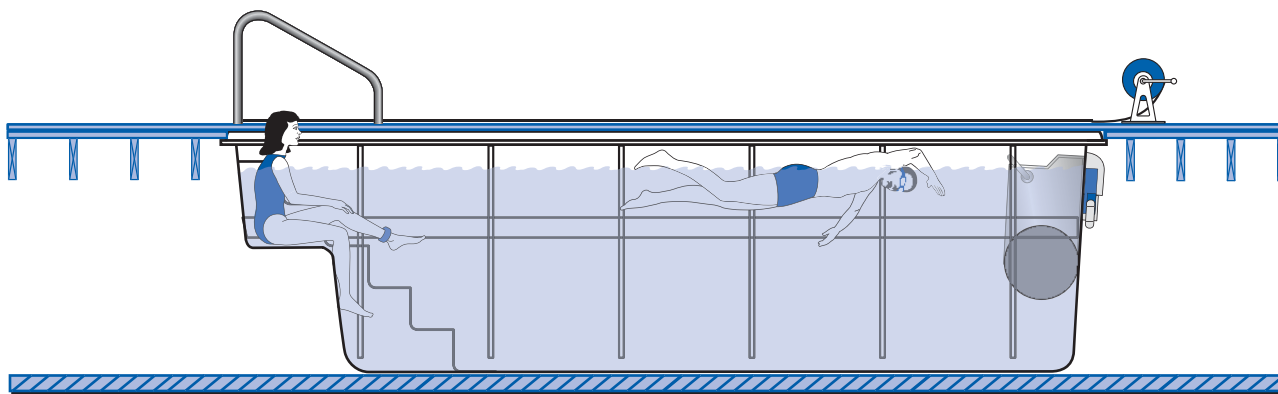
Partially in-ground effect

With this option the pool rests on a solid level surface fully aboveground and a deck is brought up to whatever height is desired to achieve the built in look. The optional external bracing system is required as described above and if possible the pool should be braced back to the surrounding deck to increase stiffness. A kneewall is typically constructed to provide a suitable seat or coping around the pool (See page 8).



Fully in-ground effect

With this option the pool rests on a solid level surface fully aboveground and a deck is brought up flush with the top of the pool to achieve a built in look. Again, the optional external bracing system is required which is only available with our 5' 0" tall pool (4' 6" water depth). If possible the pool should be braced back to the surrounding deck to increase stiffness.



LOCATION OF EQUIPMENT

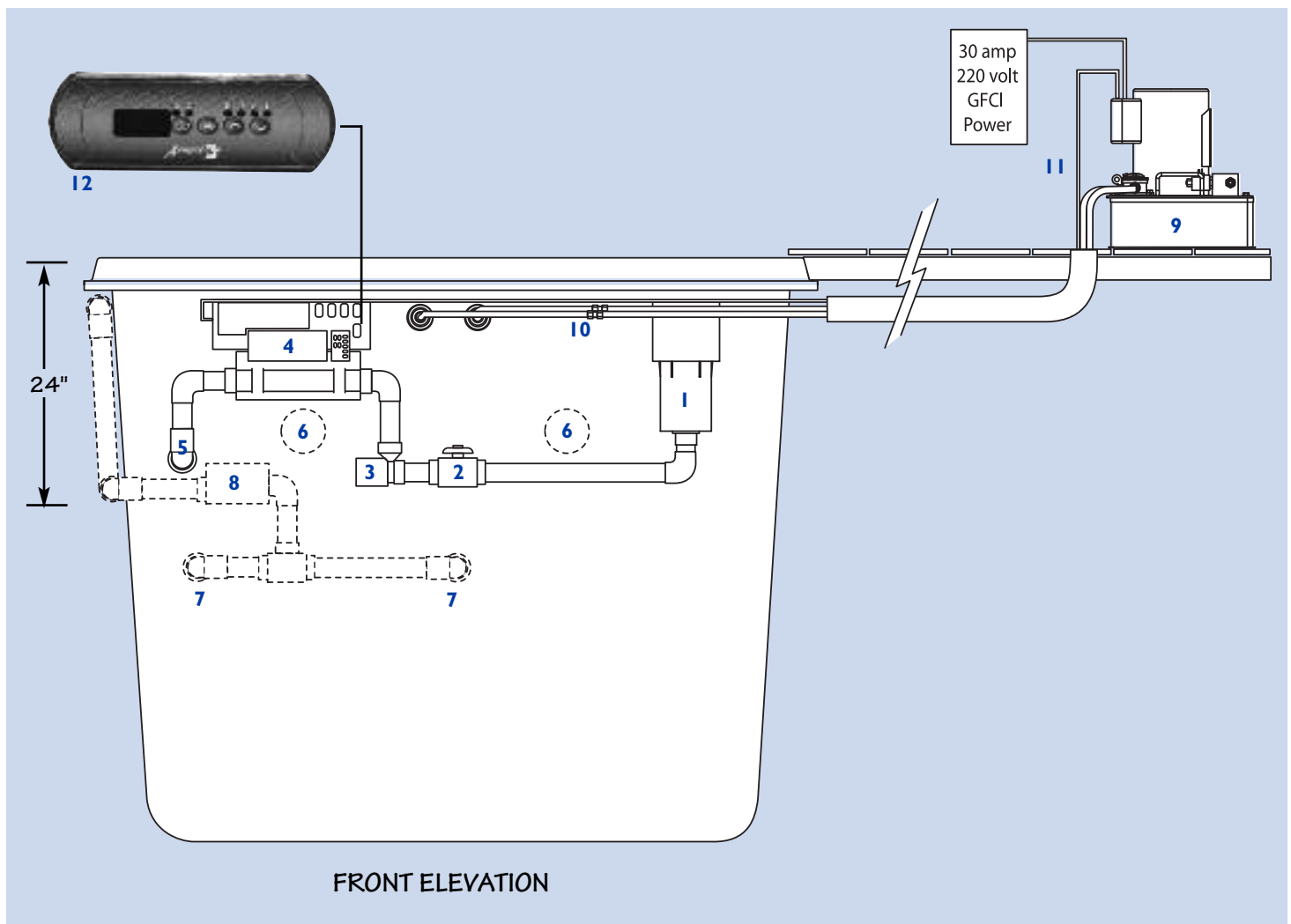
The equipment to filter and heat your Fiberglass Endless Pool is typically installed at the front of the pool just below the fiberglass lip (see figure below). The keypad controller for this system has a 10 foot cord and is usually mounted in the pool coping. When optional hydrotherapy jets are selected, the jets are plumbed into the rear wall over the bench and the jet's pump is located at the front and plugs into the heater/controller. The radio controlled 5 horsepower Hydraulic Power Unit is usually located near your electric service. It requires a single 30 amp, 220 volt, GFCI service. A flexible conduit connects this power unit to the heater/controller poolside. Hydraulic lines connect between the front of the pool and the power unit. Up to 25' of hydraulic line is provided with the pool. Additional hydraulic line may be ordered when locating the power unit further away.

For fully in-ground installations where the pool is backfilled and the equipment is kept at the front, a pit needs to be built at the front of the pool (see drawing on opposite page). While it is necessary that all fiberglass pools without our optional bracing system be backfilled at least 18" from the top of the pool, at the front, to accommodate equipment, a 24" pit may be formed as shown. The optional Retractable Security Cover typically covers this pit and a removable lid should be constructed.

Of course this controller/heater/pump system can also be located remotely as can the hydrotherapy jets pump. When the equipment is positioned remotely, water lines will have to run back and forth to the pool as will the line for the keypad controller. The high efficiency pump will also be replaced with a pump designed to be self-priming if the water lines run above the water level. Consult your design representative if you wish to remotely locate your water quality equipment.

Equipment

1. Skimmer/Filter (50 Square feet)
2. Shut Off Valve
3. Circulating Pump (120 watts)
4. Heater/Controller
5. Inlet to pool
6. Optional Lights
7. Optional Jets Suction Line
8. Optional Jet Pump
9. Hydraulic Power Unit (HPU)
10. Hydraulic Lines (pressure and return)
11. Flexible Conduit from HPU to Heater/Controller
12. Remote Keypad
13. Optional Retractable Security Cover (opposite page)



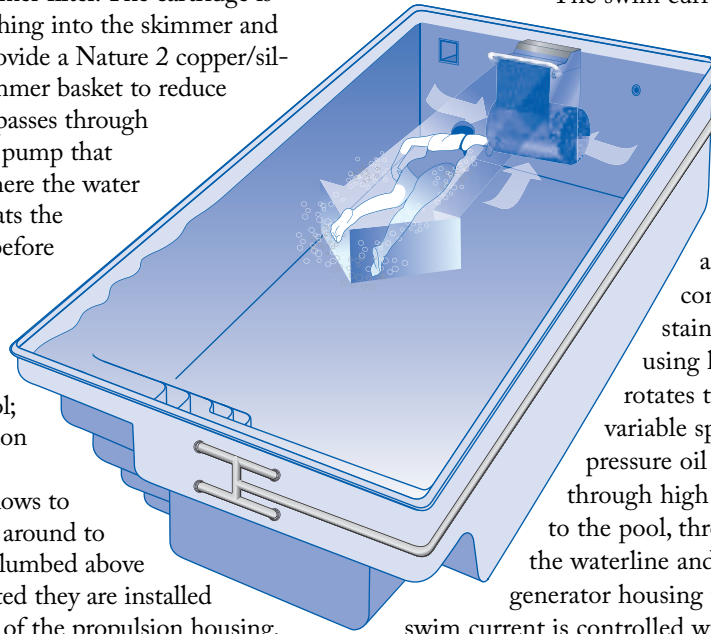
OPERATION OF THE EQUIPMENT

Water Quality System

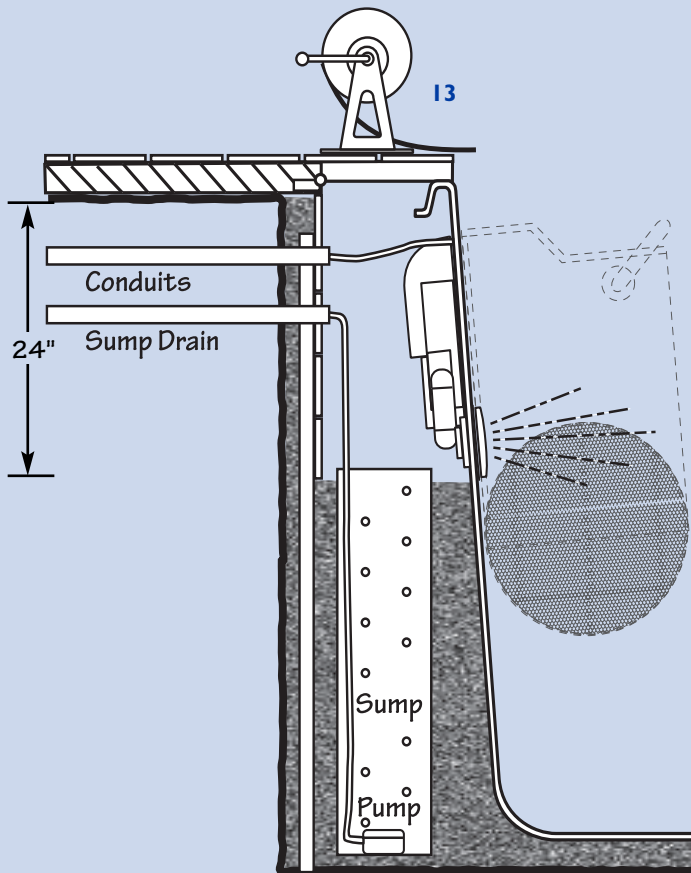
Water leaves the pool through a skimmer filter. The cartridge is removed from inside the pool by reaching into the skimmer and removing the skimmer basket. We provide a Nature 2 copper/silver cartridge that is placed in the skimmer basket to reduce your use of chlorine. The water then passes through a ball valve and into a high efficiency pump that circulates water continuously. From there the water enters the heater/controller which heats the water to a user selected temperature before returning to the pool.

When optional hydrotherapy jets are chosen, water is drawn from two suction fittings at the front of the pool; one behind the swim current propulsion housing and one to the side, thereby eliminating a suction hazard. Water flows to the hydrotherapy jets pump and then around to the back of the pool to the four jets plumbed above the rear bench. When lights are selected they are installed at the front of the pool on either side of the propulsion housing. A keypad allows for push button controls of the temperature as well as the optional lights and jets. A red LED display indicates temperature.

Swim Current System



The swim current in a Fiberglass Endless Pool uses the same high volume, low turbulence system as the original Endless Pool. A 16" diameter hydraulically-powered propeller moves a large volume of water through arrays of turning vanes and conditioning grills. A submerged stainless steel hydraulic motor using high pressure vegetable oil rotates the propeller creating the variable speed swim current. The high pressure oil is pumped by the Power Unit through high pressure hydraulic lines over to the pool, through two thruwall fittings at the waterline and down into the swim current generator housing the hydraulic motor. The swim current is controlled with a floating three button waterproof remote. An optional 7" digital display shows the speed of the swim current as 100 yard pace.



CROSS SECTION

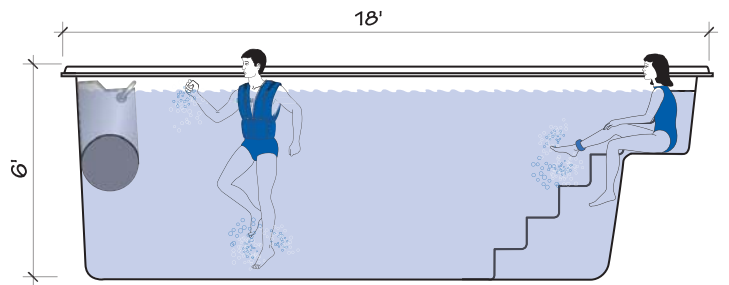
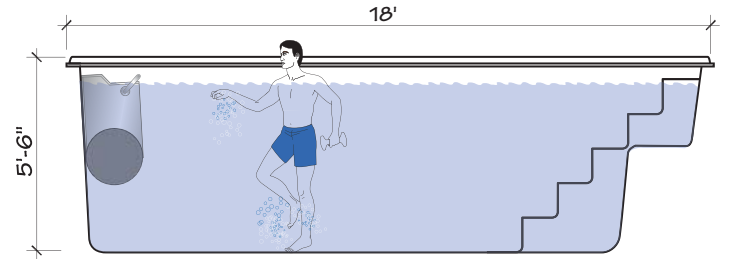
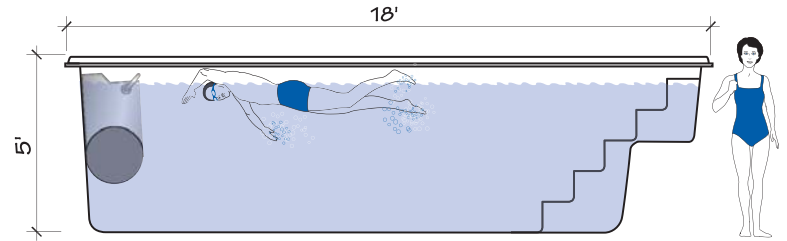
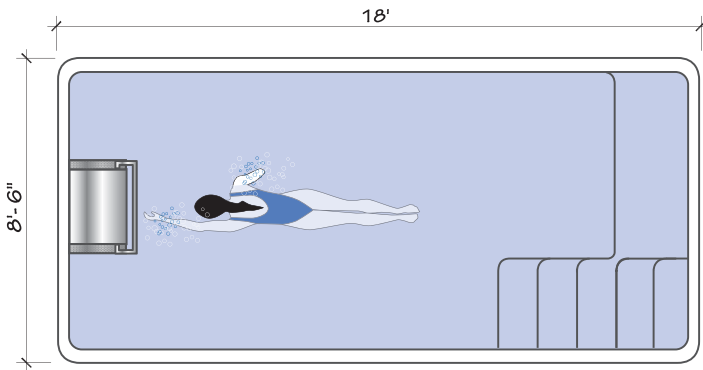
SPECIFICATIONS:

- 7' 6" x 17' swimming area
- 8' 6" x 18' outside dimensions
- overall height: 5' 0", optional 5' 6", and 6' 0"
- optional external bracing system (available only with 5' tall pool)
- water depth: 4' 6", optional 5' 0", and 5' 6"
- water capacity: 3,900 gallons, optional 4,350 and 4,800 gallons
- molded reinforced fiberglass shell with stairs and rear bench
- shell color: white, optional light blue
- solar cover, optional manual retractable security cover
- wireless remote control
- water quality system: skimmer/cartridge type filter (50 sq ft), 120 watt circulating pump, electric heater/controller with keypad
- 5 hp swim current generator,
- optional underwater lights
- optional hydrotherapy jets
- optional digital swim pace display
- optional underwater treadmill

Depth

The standard Fiberglass Endless Pool stands 5' 0" high and provides a water depth of 4' 6". This water depth is ideal for both swimming and virtually all water exercises. The standard 8' 6" x 18' x 5' pool can accommodate chest-deep aqua aerobics and step aerobics. Many of the same step aerobics performed on land can be performed in chest-deep water. Water resistance increases the intensity of arm and upper-body workouts. At the same time, water support eases stress to knees, hips and other joints. Our optional Underwater treadmill works well with water at this depth.

We do offer two deeper models which require backfilling. These pools stand 5' 6" and 6' 0" tall and provide water depths of 5' 0" and 5' 6" respectively. Some commercial facilities require deeper water to accommodate deep-water conditioning, including running in water supported by a floatation vest.



Cover

RETRACTABLE SECURITY COVER

The Fiberglass Endless Pool comes standard with a floating thermal blanket which holds in heat and reduces evaporation. We also offer an optional Retractable Security Cover which acts as a horizontal fence sealing off access to the Fiberglass Endless Pool. When in place the cover controls 100% of the humidity, making it ideal for indoor installations. Outdoors the cover seals out dirt, leaves and debris. When installed outdoors, a small surface pump is provided to remove any rainwater that might collect on the cover.

The cover retracts onto a roller at the front of the pool and deploys along low-profile tracks installed on the pool coping. A lock-down mechanism is provided to secure the cover when closed. The cover meets stringent ASTM F1346 safety standards and is strong enough to support the weight of an adult. We strongly recommend the security cover for installations that are accessible to children, non-swimmers and pets, or for installations in which humidity, falling leaves, or heat loss are concerns.

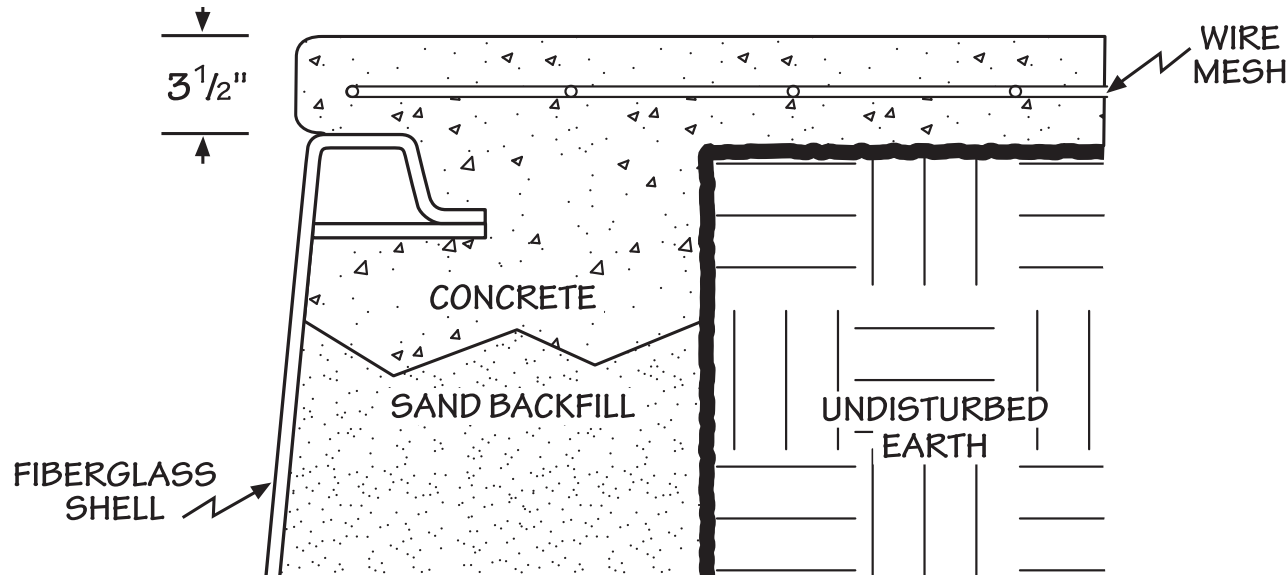


COPING:

The top edge of the Fiberglass Endless Pool is typically covered with a cantilevered coping/decking system as shown on one of the drawings below. These sketches are not intended as construction drawings and many other solutions appropriate for a wet pool environment may be employed. Please note that the coping at the front of the pool may not overhang the water since the skimmer/filter faceplate slides up during filter changes. Before setting coping remove this faceplate to better understand this constraint.

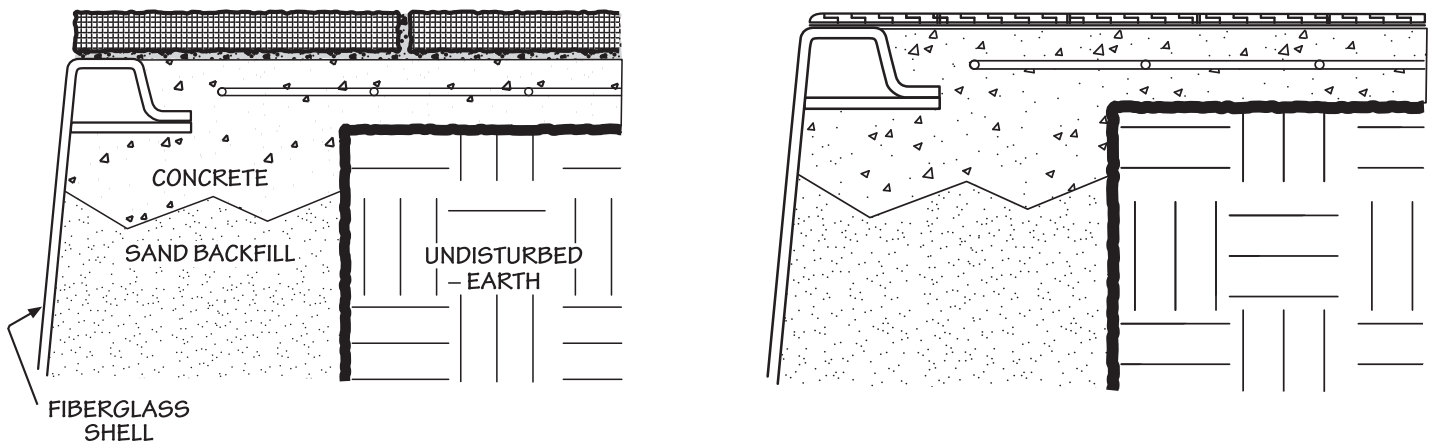
FULLY IN-GROUND WITH POURED CONCRETE DECK

With this system, after backfilling the pool, a concrete deck is poured that comes right up to the water's edge. Special forms are available that can provide are adhered to the wall of the pool creating the bullnose and are removed before the concrete has cured.



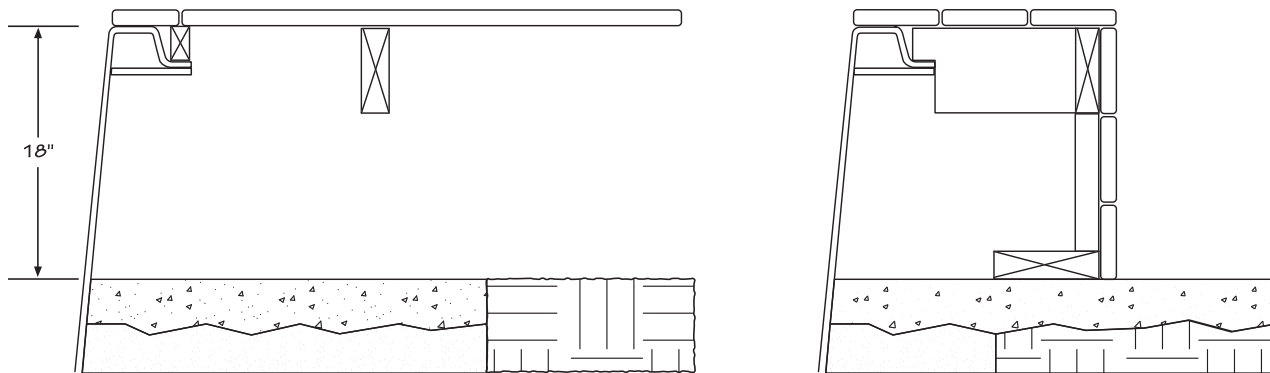
FULLY IN-GROUND WITH A STONE OR TILE SURROUND

Pouring a concrete deck around the pool flush with the top edge of the fiberglass allows for a stone surface to be laid up to the water's edge.



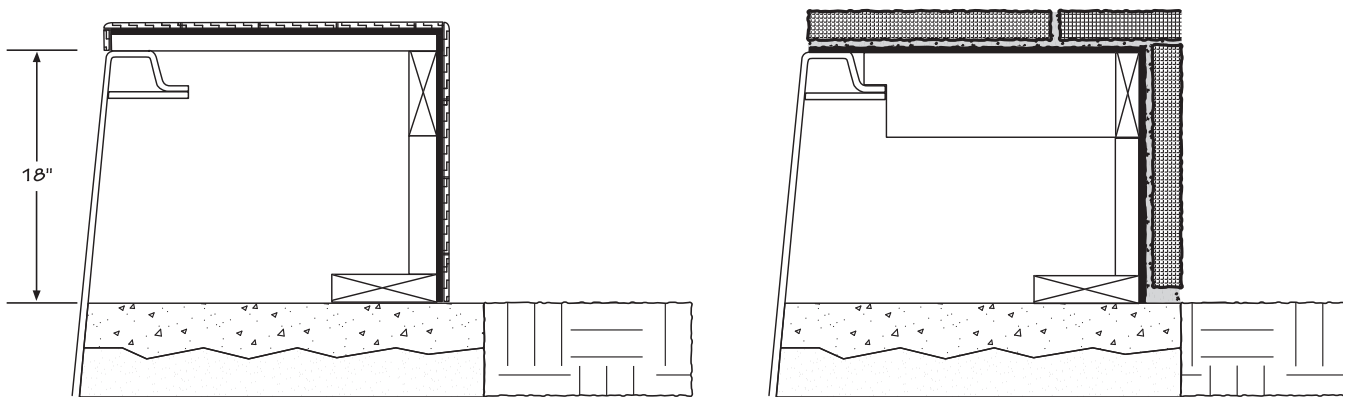
PARTIALLY IN-GROUND WITH A WOOD SURROUND

A wood member may be secured directly down to the fiberglass edge. Shown here as standard 5/4" material this wood may be part of a larger deck or a kneewall that provides both seating and support for exterior siding .



PARTIALLY IN-GROUND WITH A TILE OR STONE SURROUND

The outer lip of the Fiberglass Endless Pool can be used to support a treated plywood structure and/or cementitious backer board that in turn can support a stone or tile cantilevered coping system.



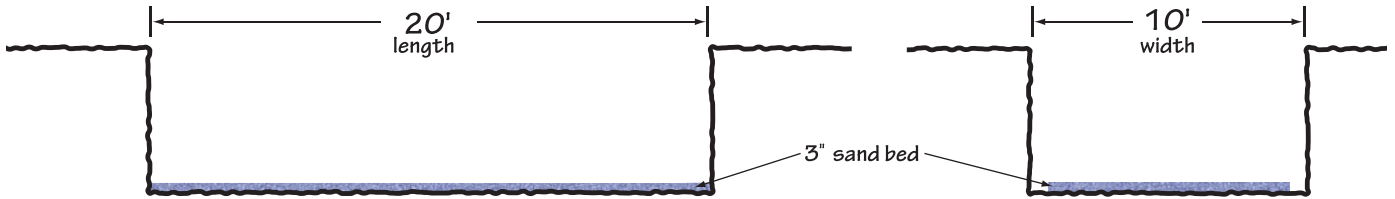
Delivery

POOL DELIVERY

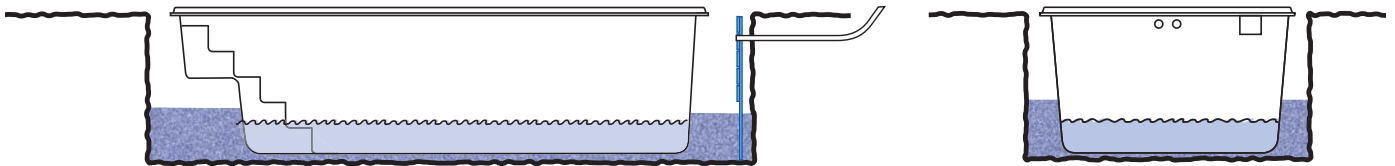
Your Fiberglass Endless Pool shell is typically delivered to your site using a small flat bed trailer. The shell is typically craned into position where the water quality and swim systems are installed by your contractor. Call your design representative and refer to our website to see a brief video overview of the delivery and installation process.



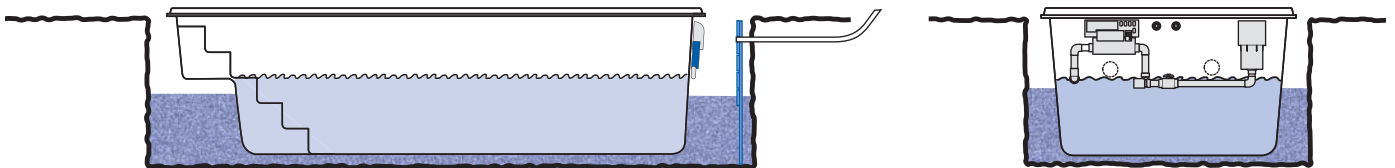
FULLY IN-GROUND FIBERGLASS ENDLESS POOL CONSTRUCTION SEQUENCE



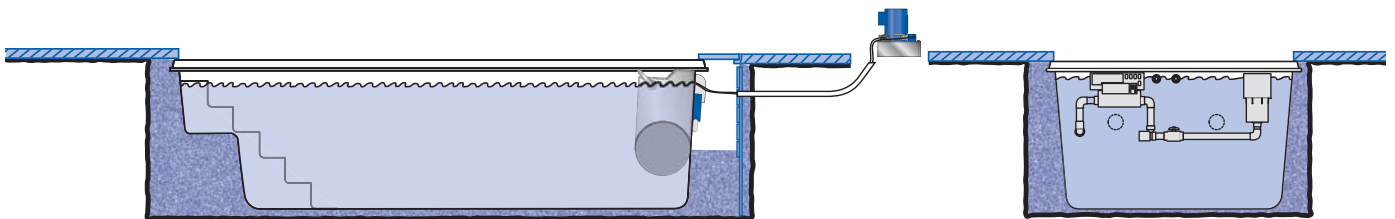
1 Excavate and prepare pit for arrival of shell. A level, compacted sand bed at least 3" deep is required. If ground water is present or may be an issue install a gravel sump with a 10" diameter vertical pipe at the front of the pool. Ground water must never be allowed to exceed the water level in your pool. Run conduit for power and two hydraulic lines between the hydraulic power unit and the equipment space at the front of the pool (Four 1-1/2" schedule 40 flexible PVC pipes).



2 Receive pool and lower into position. Level pool. Backfill with sand while filling with water. Using 3/4" plywood, frame out equipment space at the front of pool. Install sump if necessary. Plumb equipment.

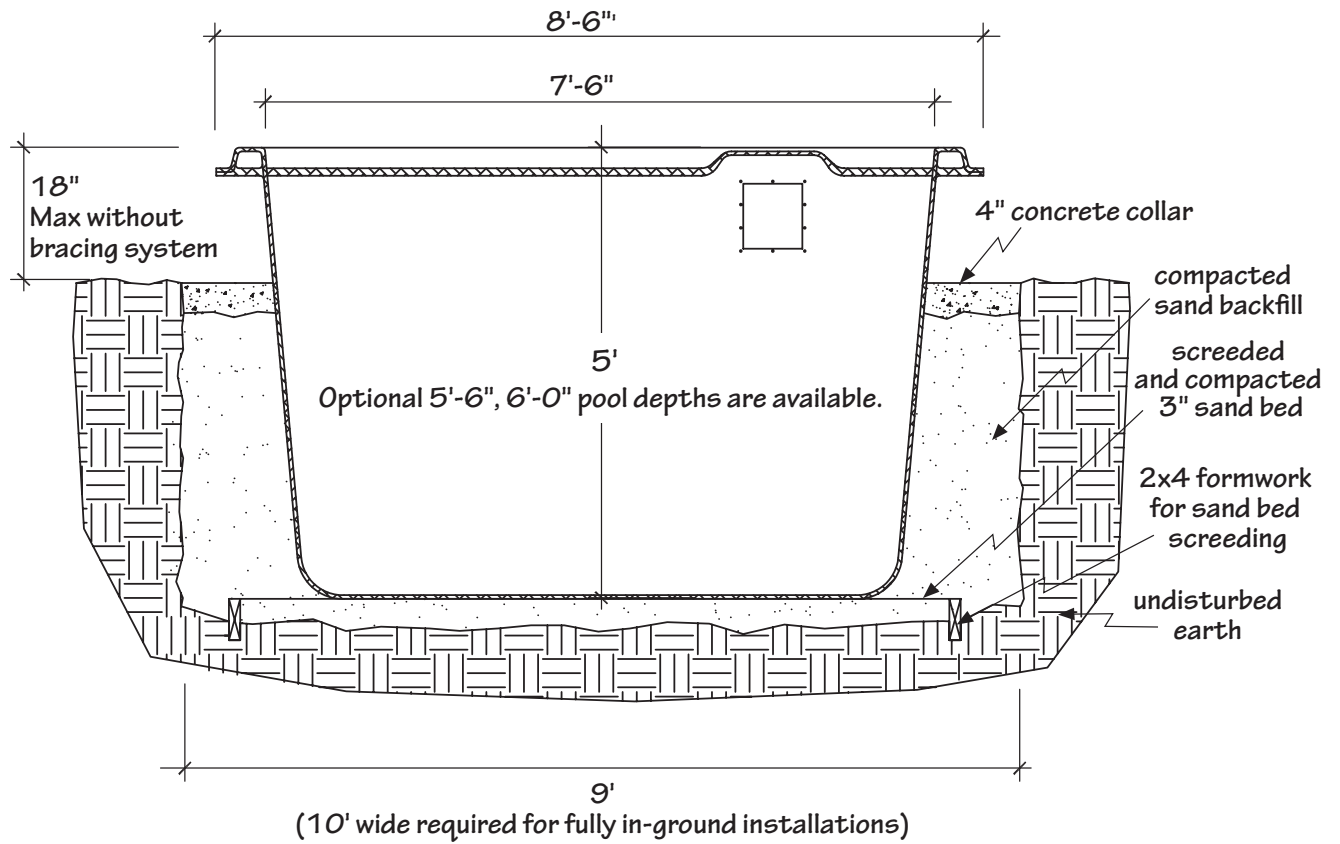


3 Continue filling while backfilling with sand. Run power and hydraulic hoses through conduit to front equipment space.

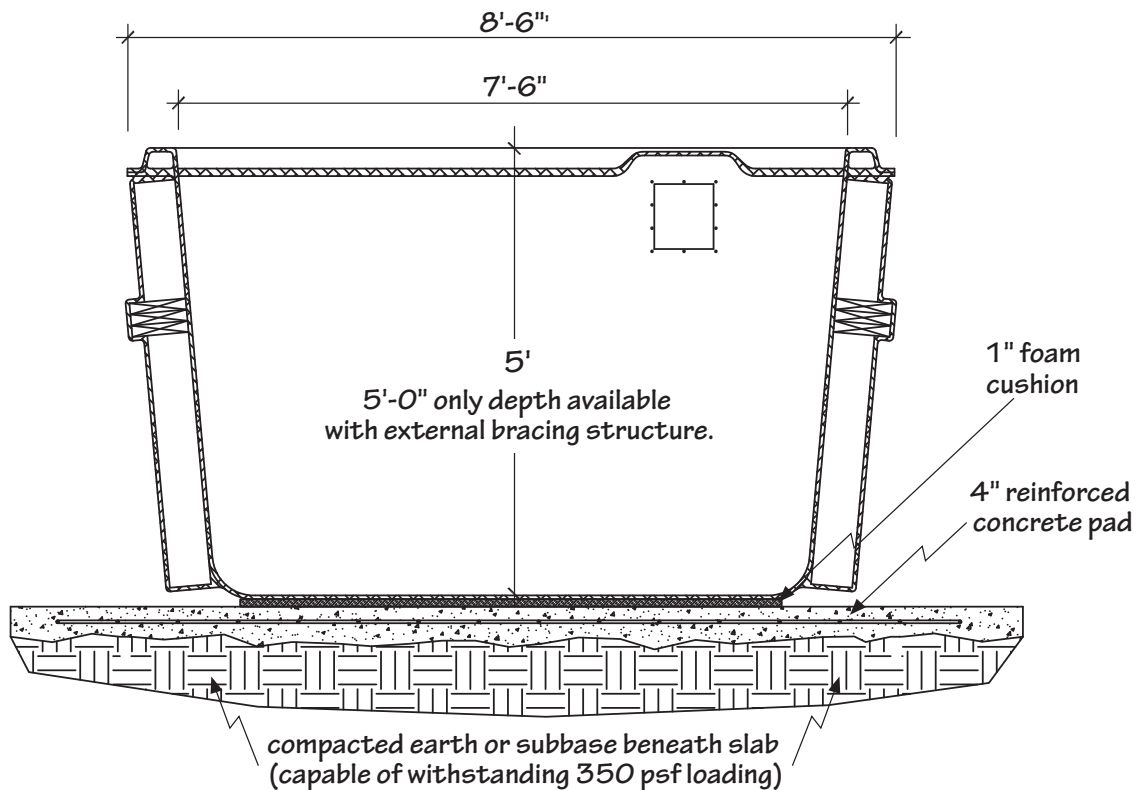


4 Pour concrete surround and build removable trap door. Install swim current generator.

FIBERGLASS ENDLESS POOL SHELL INSTALLED PARTIALLY IN-GROUND.



FIBERGLASS ENDLESS POOL SHELL WITH OPTIONAL EXTERNAL BRACING SYSTEM.



Options

The following page describe the options available with a Fiberglass Endless Pool. Please refer to the price list for all options pricing.

SHELL COLOR

Our Fiberglass Endless Pool comes standard in white but may be custom ordered in light blue.

SWIM PACE DISPLAY

Easy to read — even with swim goggles — the 7" high-visibility display presents the pace of the swimmer in minutes:seconds per 100 yards or 100 meters. Perfect for interval training or to monitor improvements in swim technique. Simply set the pace and swim for as long as you like.



HEATER

The electric heater/controller that comes standard with your Fiberglass Endless Pool can raise the pool water temperature about 0.5 degrees F per hour. If the pool is covered when not in use this will always be sufficient to maintain your water temperature since the circulating pump runs continuously. Pools aboveground should always be insulated. Once a well-insulated pool is up to temperature, the heater requires only a few hours operation per day.

Gas heaters are sometimes selected for outdoor installations, or when the owner wants a more responsive heating system. A 50,000 BTU gas heater, either natural gas or propane, can raise the pool temperature about 1.5 degrees F per hour. Of course, once warm a well insulated pool will only cool slowly. A supplementary gas heater is not recommended but may be used in conjunction with the water quality system provided by Endless Pools, Inc. Contact your design representative for further information.

ADDITIONAL DUAL-CONNECTING HYDRAULIC HOSE

If your power unit is more than 25' from the pool, you will require longer lengths of hydraulic hose. Hydraulic hoses connect the Swim Unit to the Power Unit. The Power Unit should be placed on a flat, surface and can be installed indoors or out up to 75 feet away from the Swim Unit. The Power Unit requires a 220 volt, 30-amp, GFCI electric service and should be placed in a sheltered, ventilated location. A minimum 12" air space must be provided on all sides of the Power Unit. The Power Unit needs to be accessible. There is no periodic maintenance apart from a filter change every 500 hours of use and an oil change after 1,000 hours or every 5 years. Nonetheless, the Power Unit needs to be accessible.

LIGHTS

Two underwater LED lights transform your Fiberglass Endless Pool in the evening. These low-energy lights are installed on the front of the pool on either side of the swim unit and plug directly into the heater/controller. They are turned on and off using the keypad. While LED lights have a very long life access must still be maintained to the outside of the pool wall at the front where they are installed.

HYDROTHERAPY JETS

The hydrotherapy benefits of the Fiberglass Endless Pool swim current can be supplemented with the addition of four hydrotherapy jets powered by a separate pump. The optional jets are ideal for therapy and relaxation, and are installed above the bench at the rear of the pool. The jets are turned on and off at the keypad. Since the entire system is designed to operate on a single 30 amp circuit, the jets do not function while the swim current is on. This limitation can be overcome simply by running two 30 amp circuits during installation. Access must be maintained at the rear of the pool where jets are installed. The heater/controller provides a purge cycle four times daily to insure that the water in the pipes remains fresh and doesn't freeze.

AQUATIC TREADMILL

Turn your Fiberglass Endless Pool into a complete home gym with the addition of an Aquatic Treadmill! Use the treadmill with the current on or off to vary the intensity of your walk or jog. Designed to vary the speed, you expend as much or as little effort as desired and still achieve a great cardio workout. Use the aquatic treadmill to cross-train in the Fiberglass Endless Pool. Alternate between swimming and walking or jogging to get a full body workout!

Swim...

Visit the Endless Pool, Inc. factory showroom located just 15 minutes from the Philadelphia airport, 3 miles off I-95 between Route 352 and Route 452 on Dutton Mill Road overlooking Chester Creek. Showroom hours are 8:00 am to 5:00 pm Monday through Friday, and weekends by appointment. Please call 1-800-732-8660 and schedule a test swim.



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